

Notice of Allowability

Application No.

09/673,504

Examiner

Samuel Broda

Applicant(s)

ADACHI, NORIYASU

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicants' Amendment dated 7 September 2004.
2. ☒ The allowed claim(s) is/are 1-4 and 9-20.
3. ☒ The drawings filed on 17 October 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 10/17/00 4/28/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

SAMUEL BRODA, ESQ.
PRIMARY EXAMINER

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1. This communication is in response to Applicants' Amendment Under 35 C.F.R. 1.111 dated 7 September 2004. Claims 1-4 and 9-19 were amended; claims 5-8 were canceled; claim 20 was added. Claims 1-4 and 9-20 are pending.

Reasons for Allowance

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) a method for assisting development of a program for a vehicle including program generation, downloading, and debugging steps (Kanokohata, Japanese Kokai Patent Application No. 7-93137);

(2) an application visual programming approach including the representation of components and relations that are defined by wires between input/output ports (Ackermann et al, "Visual Programming in an Object-Oriented Framework"); and

(3) a method of generation of software code from tree-structured charts (Aoyama et al, "Design Specification in Japan: Tree-Structured Charts").

5.1 Applicants' first set of claims consists of claims 1-4 and 19-20.

Independent claim 1 is directed to a method for assisting development of a program for a vehicle; independent claim 19 is the corresponding computer program product claim. Each

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claim identifies the distinct step of: “adjusting the integer conversion condition so that a difference between a floating point number input into the integer block and a floating point number obtained by a back calculation from an integer obtained after conversion by the integer block using the integer conversion condition is within a predetermined tolerable range.”

Because the closest prior art does not appear to teach or suggest the use of an integer adjustment condition, claims 1-4 and 20 are deemed allowable.

5.2 Applicants’ second set of claims consists of claims 9-13.

Independent claim 9 is directed to a device for assisting development of a program for a vehicle. This claim identifies the distinct combination of features of: “a code generation function for generating, based on a data flowchart indicative of a vehicle control specification, a segment of vehicle-use code for a vehicle control program having an integer logic to be processed by a vehicle ECU” and “an integer as a result of simulating the data flowchart using an integer obtained by converting the floating point number corresponding to the physical value.”

Because the closest prior art does not appear to teach or suggest the combination of a code generation function with a data flowchart simulation, claims 9-13 is deemed allowable.

5.3 Applicants’ third set of claims consists of claims 14 and 16-18.

Independent claim 14 is directed to a device for assisting development of a program for a vehicle. This claim identifies the distinct combination of features of: “a program code generation function for generating, based on the charts generated, a segment of vehicle-use code for a vehicle control program having an integer logic to be processed by a vehicle ECU” and “a

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labeling function for assigning a desired label to a symbol connection line desirably selected in the data flowchart, wherein a vehicle-use code using the label as a variable name of a part with the label attached is generated.

Because the closest prior art does not appear to teach or suggest the combination of a code generation function with the automatic generation of parts' names, claims 14 and 16-18 is deemed allowable.

5.4 Applicants' fourth set of claims consists of claim 15.

Independent claim 15 is directed to a device for assisting development of a program for a vehicle. This claim identifies the distinct combination of features of: "a program code generation function for generating, based on the charts generated, a segment of vehicle-use code for a vehicle control program having an integer logic to be processed by a vehicle ECU" and "a grouping function for grouping a plurality of processes corresponding to a plurality of block symbols in the data flowchart when the vehicle-use code is generated."

Because the closest prior art does not appear to teach or suggest the combination of a code generation function with the automatic grouping of processes, claim 15 is deemed allowable.

6. Any comments considered necessary by Applicants must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Broda, whose telephone number is (571) 272-3709. The Examiner can normally be reached on Mondays through Fridays from 8:00 AM – 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska can be reached at (571) 272-3716. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist, whose telephone number is (571) 272-2100.



**SAMUEL BRODA, ESQ.
PRIMARY EXAMINER**